

REMARKS

Claims 1 - 45 are now pending in the application. Claims 23 and 24 are cancelled without prejudice or disclaimer. The Amendment does not introduce new matter, and the entry is respectfully requested. Based on the above Amendment and the following Remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections, and that he withdraw them.

Objections to the Disclosure

The Examiner required the last word of the Title be corrected. The above amendment includes the correction.

The Examiner required that information be provided in place of the blank line preceding -- (EPE)--(Page 6, line 1). Applicant's records indicate that the current sentence as submitted, reads: "On the other hand, applications that are fully integrated, such as Engine Performance Estimator (EPE) 112, can only be launched via STW 116 and not via the diagnostic advisor tool 114." Elaboration on the required correction is respectfully requested.

Objections to the Claims

The Examiner has objected to claims 17, 23, 35, and 38. Claim 23 has been canceled. Claims 17, 35, and 38 have been amended as suggested by the Examiner.

Rejections under 35 U.S.C. § 102

The Examiner has rejected claims 1-4, 15 - 17, and 45 as allegedly being "clearly anticipated" by U.S. Patent No. 5,787,234 to Molloy. Applicants traverse this rejection based on the following Remarks, and respectfully request that the Examiner reconsider the rejection, and that he withdraw it.

In a rejection under 35 U.S.C. § 102, each and every claim element must be present in the applied reference. However, each and every claim element of Claim 1 are not present in Molloy. For example, Molloy does not disclose "displaying a first set of recommended actions, as a function of the initial problem", and "displaying a second set of recommended actions as a function of the initial problem and the answer to the at least one question", as recited in Claim 1. Molloy discloses displaying a single set of potential actions. This point is best illustrated by reviewing each of the field identifiers and associated fields

used for Figures 3 – 7 (Col. 7 Line 65 – Col. 7 Line 31). Only one field associated with actions is discussed. In addition, Figures 3 – 6 and the associated discussion only disclose displaying the action recommendation once to the user. (Col. 8 Line 16 – Col. 9 Line 20). Molloy does disclose enabling a user to view all of the activations produced by the steps illustrated in Figures 3-6, as shown in Figure 7. (Col. 9 Line 20 – 25) However, this illustration of activations is simply a display of “the content of this memory [which] can be examined by a window such as that in Fig. 7 . . .”. (Col. 9 Line 20 – 25) Even if this was argued to be a display of a set of recommended actions, clearly this alleged display is performed as a function of a request to examine memory contents, as opposed to “displaying” the recommended actions as a “function of the initial problem” or as a “function of the initial problem and the answer to the at least one question” as recited in Claim 1.

The Examiner has referenced Figures 16 and 18 indicating they disclose displaying a set of recommended actions as a function of the initial problem. However, these illustrations are analogous to Figure 7 in that they show “how the concept activations in Top of Mind memory are affected”. Again, this is not “displaying a first set of recommended actions, as a function of the initial problem”, or “displaying a second set of recommended actions as a function of the initial problem and the answer to the at least one question”, as recited in Claim 1. Rather, Figures 16 and 18 at best illustrate displaying a set of recommended actions as a function of a request to view memory contents. The data illustrated in Figure 16 and 18 may help the developer/debugger of the Top of the Mind program, but does not provide useful information to a user diagnosing a work machine, and is not illustrated during that mode of operation.

In addition, displaying a first and second set of recommended actions as recited in Claim 1, is not obvious in light of Molloy. Again, the displaying of the first and second set of recommended actions, as recited in the present invention, is performed in the normal course of problem solving. However, in Molloy, the viewing of actions as illustrated in Figure 7 is done in response to a request to view the contents of memory, and only done to illustrate the total amount of “activations” “produced by the steps illustrated in Figures 3 – 6”. [Col. 9 Line 22 – 25] Therefore, Claim 1 is not anticipated by Molloy, and is not obvious in light of Molloy.

In view of the aforementioned comments, Independent claims 1, 17 and 45, and the associated dependent claims, are believed to be allowable.

Rejections under 35 U.S.C. § 103

The Examiner has rejected claims 21 – 31, 40, 41 and 44 under the obviousness provisions of 35 U.S.C. § 103 as allegedly being unpatentable over U.S. Patent No. 5,787,234 to Molloy in view of U.S. Patent No. 6,125,312 to Nguyen et al.. Claim 22 has been amended to incorporate the limitations of Claims 23 and 24. Claim 40 has been amended. The rejection as applied to the remaining claims, as amended, is respectfully traversed.

With regard to Independent Claims 21, 22, and 44, neither Molloy or Nguyen, alone or combined, teach or suggest “displaying a first set of recommended actions, as a function of the initial problem”, and “displaying a second set of recommended actions as a function of the initial problem and the at least one question”, recited in Claims 21, and 22, and included as limitations in 44. Displaying a first and second set of recommended actions is not obvious in light of Molloy and Nguyen. Again, the displaying of the first and second set of recommended actions, as recited in the present invention, is performed in the normal course of problem solving. However, in Molloy, the display of actions as illustrated in Figure 7 is done as a function of a request to view the contents of memory, and only done to illustrate the total amount of “activations” “produced by the steps illustrated in Figures 3 – 6”. [Col. 9 Line 22 – 25] Viewing memory contents may be useful for debugging Top of the Mind, but is not useful during diagnosing the work machine, and as indicated in Figures 3 – 6, and the associated discussion, is not performed during the work machine diagnosis. Therefore, Independent Claims 21, 22, and 44 are not obvious in light of Molloy and Nguyen either alone or combined.

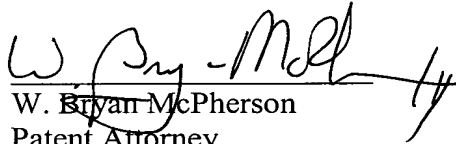
The Examiner has rejected Claim 40, as being unpatentable over Molloy in view of Nguyen. Claim 40, has been amended to, recite a computer based system “wherein the diagnostic advisor tool is adapted to read data values from the work machine in response to a user request”. Neither Molloy or Nguyen disclose reading values from the work machine in response to a user request. In fact, Nguyen mentions that additional data may be needed. The solution in Nguyen is for the user to physically obtain the data: “For example, the user may be requested to obtain further data, measure a particular parameter or test a particular component on the engine in order to confirm whether a particular action is appropriate”. (Col. 3, Line 59 – 62). Nguyen, in essence, teaches away from having the diagnostic advisor read data values from the work machine. Therefore, neither Nguyen or Molloy, combined or separate, teach or suggest the invention as described in Independent Claim 40.

For the reasons given above, Applicant respectfully submits that the claims, 21, 22, 40 and 44, and the associated dependent claims, patentably distinguish Applicant's invention over the references cited by the Examiner, and are in condition for allowance.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections, and that he withdraw them. The Examiner is courteously invited to telephone the undersigned representative if he believes that an interview might be useful for any reason.

Respectfully submitted,


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Marked Up Copy of Amendments pursuant to 37 CFR 1.121

Title: METHOD AND SYSTEM FOR PROVIDING
DIAGNOSTICS FOR A WORK MACHINE

Application No. : 09/742,879

Atty Docket No. : 00-104

In the Title

Method and System For Providing Diagnostics for a Work Machine[s]

In the Claims

10. A computer based method, as set forth in claim 1, including the step of reading data values from the work machine in response to a user request.

17. A computer based method for providing case base diagnostics for a work machine, the case bases being comprised of diagnostic information and processes related to the work machine [(102)], including the steps of:

receiving from an user, a description of an initial problem related to the work machine;

displaying at least one question, as a function of the initial problem;

displaying a first set of recommended actions, as a function of the initial problem;

receiving an answer from the user to the at least one question[, wherein the second set of recommended actions is one of a subset of the first set of recommended actions, a set of other recommended actions, and a combination of recommended actions from the first set and an other set];

displaying a second set of recommended actions as a function of the initial problem and the answer to the at least one question, wherein the second set of recommended actions is one of a subset of the first set of recommended actions, a set of other recommended

actions, and a combination of recommended actions from the first set and an other set; and,
providing a graphical user interface for operation by the user.

22. A computer based system for providing case base diagnostics for a work machine, the case bases being comprised of diagnostic information and processes related to the work machine, comprising:

an external source containing service information related to the work machine;
[and,]

a diagnostic advisor tool for interaction with a user, receiving information from the user and responsively displaying at least one recommended action, and providing a link to relevant information within the external source; and

wherein the diagnostic advisor tool is adapted to receive, from the user, a description of an initial problem related to the work machine, display at least one question, as a function of the initial problem, display a first set of recommended actions, as a function of the initial problem, receive an answer from the user to the at least one question and display a second set of recommended actions as a function of the initial problem and the answer to the at least one question, wherein the second set of recommended actions is one of a subset of the first set of recommended actions, a set of other recommended actions, and a combination of recommended actions from the first set and an other set.

25. A computer based system, as set forth in claim [24] 22, wherein the diagnostic advisor tool is adapted to display the answer provided by the user.

35. A computer based system, as set forth in claim [22] 34, wherein the diagnostic advisor tool is adapted to display an alert dialog in response to actuation by the user of the alert link.

38. A computer based system, as set forth in claim [37] 22, wherein the diagnostic advisor tool is adapted to display a question detail window containing detailed information regarding the at least one question, in response to user selection of the at least

one question.

40. A computer based system for providing case base diagnostics for a work machine, the case bases being comprised of diagnostic information and processes related to the work machine, comprising:

an external source containing service information related to the work machine;

a diagnostic advisor tool for interaction with a user, receiving information from the user and responsively displaying at least one recommended action, and providing a link to relevant information within the external source; [and]

a graphical user interface for operation by the user[.]; and

wherein the diagnostic advisor tool is adapted to read data values from the work machine in response to a user request.